

**SUPER GRINDING PARTICLE CUTTER**

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**Abstract of JP2001030175**

**PROBLEM TO BE SOLVED:** To prevent generation of bend or the like during cutting of a high hardness material by providing a super grinding particle layer comprising adhered super grinding particles on the outer periphery of a base metal formed by sintering a powdery mixture of titanium carbide and steel, machining it to a base metal shape, and then quenching it.

**SOLUTION:** This super grinding particle cutter has a super grinding particle layer 2 in which super grinding particles are stuck to the outer periphery of a base metal 1 formed by sintering a powdery mixture of 15-50 wt.% titanium carbide and 50-85 wt.% steel, machining it to a base metal shape, and then quenching it. The super grinding particle cutter does not generate bending during cutting a high hardness material even when the base metal 1 and the super grinding particle layer 2 are thin, and can perform a high accurate cutting at a low cutting cost. This super grinding particle cutter is light, so that it is easily handled even if many cutters are combined to be used multiply, and it can perform efficient cutting at a less power consumption.

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